

Elevated Cancer Risk Levels in Laredo from Ethylene Oxide Emissions by Midwest Sterilization Corp.

United ISD Trustees

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*Presenters: The Hon. Vanessa Perez;
RGISC & Clean Air Laredo Coalition*



Midwest Laredo

Based in Jackson, Missouri
Opened Laredo facility in 2005, in the Killam
Industrial Park off Mines Road/FM 1472.

Emissions Chart

Midwest Sterilization Corp. - Laredo facility

Ethylene Oxide Emissions

Data: 2005-2020*

**Self-reported data by company*

U.S. Environmental Protection Agency's Toxic Release Inventory (TRI)

Source: <https://enviro.epa.gov/facts/tri/ef-facilities/#/Release/78045MDWST121GE>

MIDWEST STERILIZATION CORP. (LAREDO, TX)

Self-reported Ethylene Oxide Emissions

U.S. EPA Toxic Release Inventory (TRI) Facility Report
Facility ID: 78045MDWST121GE

| Year | Fugitive Air (lbs) | Stack Air (lbs) | Total (lbs) |
|------|-----------------------|--------------------|----------------|
| 2005 | 85 | 4,427 | 4,512 |
| 2006 | 157 | 7,805 | 7,962 |
| 2007 | 172 | 8,626 | 8,798 |
| 2008 | 216 | 10,454 | 10,670 |
| 2009 | 238 | 11,358 | 11,596 |
| 2010 | 270 | 12,695 | 12,965 |
| 2011 | 275 | 12,902 | 13,177 |
| 2012 | 277 | 12,996 | 13,273 |
| 2013 | 327 | 15,085 | 15,412 |
| 2014 | 354 | 15,384 | 15,738 |
| 2015 | 413 | 17,362 | 17,775 |
| 2016 | 467 | 14,264 | 14,731 |
| 2017 | 471 | 14,374 | 14,845 |
| 2018 | 481 | 14,631 | 15,112 |
| 2019 | 540 | 15,850 | 16,390 |
| 2020 | 558 | 5,756 | 6,314 |
| | 5,301 | 193,988 | 199,270 |

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TX

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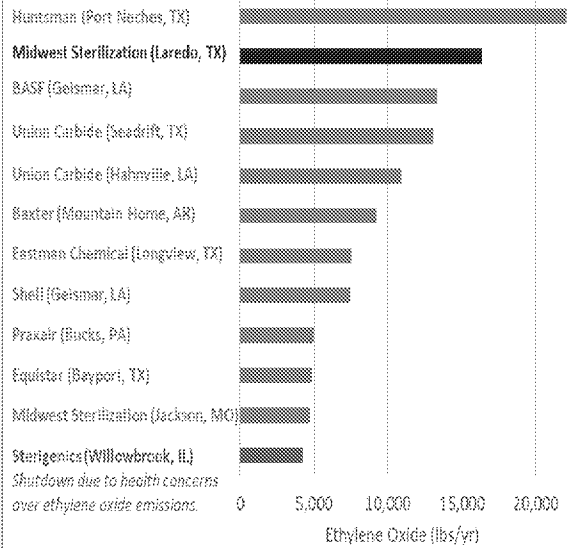
Source: <https://enviro.epa.gov/facts/tri/ef-facilities/#/Release/78045MDWST121GE>

Laredo

In 2019, Midwest (*in red*) emitted more than 16,000 pounds of ethylene oxide into the air, making it the 2nd largest emitter in the United States.

In 2019, Willowbrook (*in blue*), an affluent suburb of Chicago, shut down the Sterigenics plant which was emitting less than 1/3 of what Midwest emits in Laredo.

TOP EMITTERS OF ETHYLENE OXIDE IN THE U.S., VERSUS STERIGENICS' CLOSED PLANT



Source: EPA Risk-Screening Environmental Indicators (RSEI) 2019 data.
Available: <https://ed01.epa.gov/public/extraactions/EasyRSEI/EasyRSEI.html>.

Midwest Sterilization Corp - Laredo

2nd in the U.S.

Among 100+ facilities that emit ethylene oxide.

Source: U.S. EPA, 2019

3rd in the U.S.

Highest Cancer Hazard from air pollution among
15,000+ industrial facilities that report air toxic data
to EPA's Toxic Release Inventory.

Source: U.S. EPA, 2019

**In most of Laredo,
EPA data shows that the cancer risk is 1-in-30,000,
much of it driven by Midwest.**

**In the immediate area around Midwest Sterilization Corp,
in the Killam Industrial Park and its 200 businesses,
the cancer risk is 1-in-560.**

*1-in-10,000 cancer risk level concentration
is measured by continuous exposure
of just 0.011 ppb (part per billion) or 0.02 µg/m³ (microgram per cubic meter)*

ProPublica's Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S.

2-year analysis of billions of rows of EPA data to map the spread of cancer-causing industrial air emissions at the neighborhood level.

(EPA's target for "acceptable" cancer risk is 1-in-1 million)

Area of industrial cancer risk around
Laredo, Texas

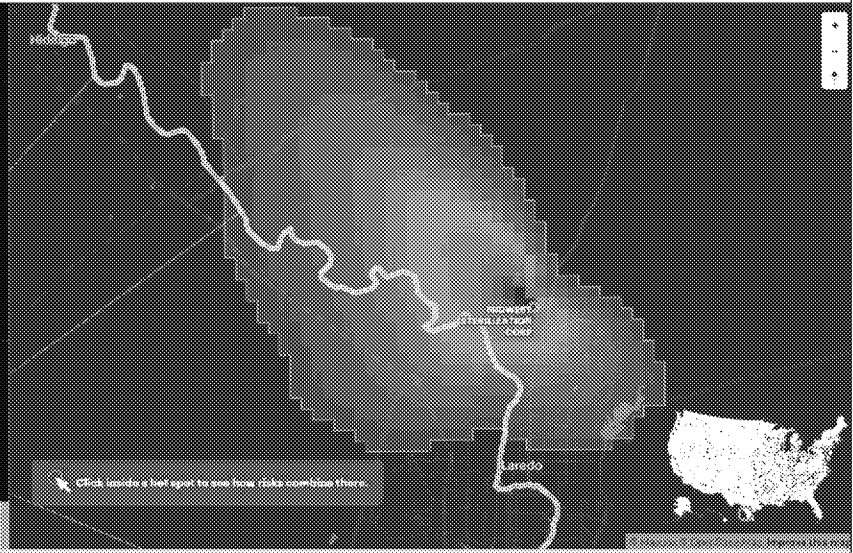
| Pop. in hot spot | Average Risk | Highest Risk |
|------------------|--|---|
| 130K | 1 in 30,000, or 66% lower than the EPA's acceptable risk. | 1 in 560, or 18 times the EPA's acceptable risk. |

1 in 100,000 1 in 10,000 1 in 1,000 1 in 50
incremental lifetime cancer risk

People living in this area ☒ have at least an estimated 1 in 100,000 excess lifetime cancer risk from industrial air pollution based on a ProPublica analysis of five years of EPA modeling.

Our map is a screening tool that indicates areas of potential concern. It is not a site-specific risk assessment, and cannot be used to tie individual cancer cases to emissions from specific industrial facilities. [See what does this mean for me?](#)

ProPublica is not a medical or legal organization. This tool is not a substitute for professional advice. For more information, see [our FAQ](#).



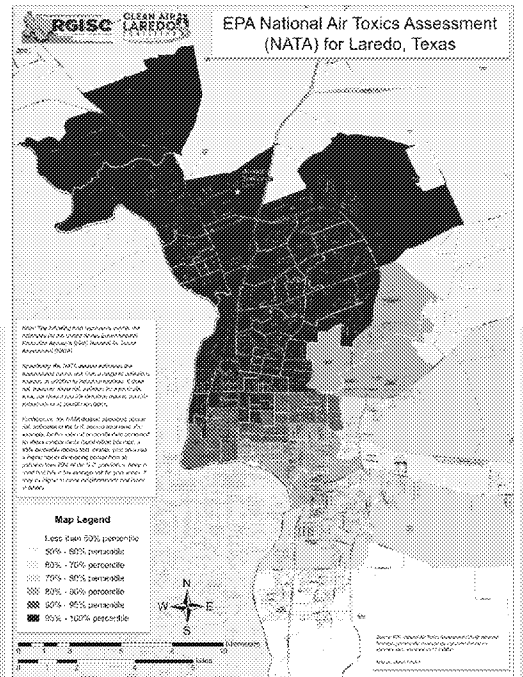
U.S. EPA NATA Cancer Risk Map

2014 data (most recent map)

Laredoans are exposed to a significantly high volume of EtO emissions, and related cancer risk levels, which the EPA has deemed “unacceptable.”

RED area: Census tracts with the highest risk of developing cancer from air pollution compared to 95-100% other U.S. residents.

ORANGE areas: Census tracts with risks of developing cancer from air pollution compared to 90-95% (dark orange) and 80-90% (light orange) other U.S. residents.



Laredo Schools and Children at Risk

**10 Laredo schools rank
in the top 1% of ALL schools in the U.S.
for "Most Air Toxic/Hazardous Air
Pollutants" because of ethylene oxide.**

The EPA reports that ethylene oxide
is 30 times more toxic to adults and
60 times more toxic to children
than previously estimated.

Source: "Air Toxics at School Project"; Political Economy Research Institute (PERI) at the U. of Massachusetts Amherst

Laredo Schools at Risk – top 20

| School | Toxic Hazard | Percentile (U.S.) |
|--------------------------------------|--------------|-------------------|
| JULIA BIRD JONES MULLER ELEMENTARY | 948,081.14 | 1st |
| BARBARA FASKEN ELEMENTARY | 241,827.06 | 1st |
| UNITED DAY SCHOOL | 165,405.30 | 1st |
| KAZEN ELEMENTARY | 145,274.91 | 1st |
| FINLEY ELEMENTARY | 145,274.91 | 1st |
| RAUL PERALES MIDDLE | 142,491.06 | 1st |
| GEORGE WASHINGTON MIDDLE | 139,094.90 | 1st |
| MATIAS DE LLANO ELEMENTARY | 119,012.78 | 1st |
| TRAUTMANN MIDDLE | 110,048.68 | 1st |
| ELIAS HERRERA MIDDLE | 110,048.68 | 1st |
| DR MALAKOFF ELEMENTARY | 104,865.29 | 2nd |
| TRAUTMANN ELEMENTARY | 102,924.01 | 2nd |
| MARY HELP OF CHRISTIANS SCHOOL | 90,927.74 | 2nd |
| CHARLES BORCHERS ELEMENTARY | 86,346.89 | 2nd |
| JUVENILE JUSTICE ALTERNATIVE PROGRAM | 85,906.80 | 2nd |
| UNITED MIDDLE | 85,906.80 | 2nd |
| MUNDO MONTESSORI | 81,622.42 | 2nd |
| LAREDO CHI ACADEMY BEAUTY SCHOOL | 81,622.42 | 2nd |
| NYE ELEMENTARY | 75,278.28 | 2nd |
| COL SANTOS BENAVIDES ELEMENTARY | 71,592.40 | 2nd |

Source: "Air Toxics at School Project" - PERI at the University of Massachusetts Amherst

In 2019, the PERI at U Mass published a review of EPA data focused on school exposure, "Air Toxics at School".

In Laredo, Muller ES has an Air Toxic concentration that is **205 times** the national average at schools. This toxicity is based on **EtO** pollution.

There are only 24 schools with worse air toxic ranks in the United States, placing Muller in the **top 1% nationwide** for chronic health risk from air pollution.

94 of 95 Laredo schools (public, private, charter, specialty, higher education) rank in the **top 6%** of Most Air Toxic schools in the U.S., based on **EtO** pollution.

PERI School Air Toxics


PERI is a list of schools with elevated chronic health risk from air pollution, based on EPA data focused on school exposure, "Air Toxics at School". The air pollution associated with these schools is based on EPA data from 2014-2018. The air pollution associated with these schools is based on EPA data from 2014-2018. The air pollution associated with these schools is based on EPA data from 2014-2018.

| School Name | Rank | Score | School Name | Rank | Score |
|------------------|------|--------|------------------|------|--------|
| Alamo Elementary | 1 | 100.00 | Alamo Elementary | 1 | 100.00 |
| Alamo Elementary | 2 | 99.99 | Alamo Elementary | 2 | 99.99 |
| Alamo Elementary | 3 | 99.98 | Alamo Elementary | 3 | 99.98 |
| Alamo Elementary | 4 | 99.97 | Alamo Elementary | 4 | 99.97 |
| Alamo Elementary | 5 | 99.96 | Alamo Elementary | 5 | 99.96 |
| Alamo Elementary | 6 | 99.95 | Alamo Elementary | 6 | 99.95 |
| Alamo Elementary | 7 | 99.94 | Alamo Elementary | 7 | 99.94 |
| Alamo Elementary | 8 | 99.93 | Alamo Elementary | 8 | 99.93 |
| Alamo Elementary | 9 | 99.92 | Alamo Elementary | 9 | 99.92 |
| Alamo Elementary | 10 | 99.91 | Alamo Elementary | 10 | 99.91 |
| Alamo Elementary | 11 | 99.90 | Alamo Elementary | 11 | 99.90 |
| Alamo Elementary | 12 | 99.89 | Alamo Elementary | 12 | 99.89 |
| Alamo Elementary | 13 | 99.88 | Alamo Elementary | 13 | 99.88 |
| Alamo Elementary | 14 | 99.87 | Alamo Elementary | 14 | 99.87 |
| Alamo Elementary | 15 | 99.86 | Alamo Elementary | 15 | 99.86 |
| Alamo Elementary | 16 | 99.85 | Alamo Elementary | 16 | 99.85 |
| Alamo Elementary | 17 | 99.84 | Alamo Elementary | 17 | 99.84 |
| Alamo Elementary | 18 | 99.83 | Alamo Elementary | 18 | 99.83 |
| Alamo Elementary | 19 | 99.82 | Alamo Elementary | 19 | 99.82 |
| Alamo Elementary | 20 | 99.81 | Alamo Elementary | 20 | 99.81 |
| Alamo Elementary | 21 | 99.80 | Alamo Elementary | 21 | 99.80 |
| Alamo Elementary | 22 | 99.79 | Alamo Elementary | 22 | 99.79 |
| Alamo Elementary | 23 | 99.78 | Alamo Elementary | 23 | 99.78 |
| Alamo Elementary | 24 | 99.77 | Alamo Elementary | 24 | 99.77 |
| Alamo Elementary | 25 | 99.76 | Alamo Elementary | 25 | 99.76 |
| Alamo Elementary | 26 | 99.75 | Alamo Elementary | 26 | 99.75 |
| Alamo Elementary | 27 | 99.74 | Alamo Elementary | 27 | 99.74 |
| Alamo Elementary | 28 | 99.73 | Alamo Elementary | 28 | 99.73 |
| Alamo Elementary | 29 | 99.72 | Alamo Elementary | 29 | 99.72 |
| Alamo Elementary | 30 | 99.71 | Alamo Elementary | 30 | 99.71 |
| Alamo Elementary | 31 | 99.70 | Alamo Elementary | 31 | 99.70 |
| Alamo Elementary | 32 | 99.69 | Alamo Elementary | 32 | 99.69 |
| Alamo Elementary | 33 | 99.68 | Alamo Elementary | 33 | 99.68 |
| Alamo Elementary | 34 | 99.67 | Alamo Elementary | 34 | 99.67 |
| Alamo Elementary | 35 | 99.66 | Alamo Elementary | 35 | 99.66 |
| Alamo Elementary | 36 | 99.65 | Alamo Elementary | 36 | 99.65 |
| Alamo Elementary | 37 | 99.64 | Alamo Elementary | 37 | 99.64 |
| Alamo Elementary | 38 | 99.63 | Alamo Elementary | 38 | 99.63 |
| Alamo Elementary | 39 | 99.62 | Alamo Elementary | 39 | 99.62 |
| Alamo Elementary | 40 | 99.61 | Alamo Elementary | 40 | 99.61 |
| Alamo Elementary | 41 | 99.60 | Alamo Elementary | 41 | 99.60 |
| Alamo Elementary | 42 | 99.59 | Alamo Elementary | 42 | 99.59 |
| Alamo Elementary | 43 | 99.58 | Alamo Elementary | 43 | 99.58 |
| Alamo Elementary | 44 | 99.57 | Alamo Elementary | 44 | 99.57 |
| Alamo Elementary | 45 | 99.56 | Alamo Elementary | 45 | 99.56 |
| Alamo Elementary | 46 | 99.55 | Alamo Elementary | 46 | 99.55 |
| Alamo Elementary | 47 | 99.54 | Alamo Elementary | 47 | 99.54 |
| Alamo Elementary | 48 | 99.53 | Alamo Elementary | 48 | 99.53 |
| Alamo Elementary | 49 | 99.52 | Alamo Elementary | 49 | 99.52 |
| Alamo Elementary | 50 | 99.51 | Alamo Elementary | 50 | 99.51 |
| Alamo Elementary | 51 | 99.50 | Alamo Elementary | 51 | 99.50 |
| Alamo Elementary | 52 | 99.49 | Alamo Elementary | 52 | 99.49 |
| Alamo Elementary | 53 | 99.48 | Alamo Elementary | 53 | 99.48 |
| Alamo Elementary | 54 | 99.47 | Alamo Elementary | 54 | 99.47 |
| Alamo Elementary | 55 | 99.46 | Alamo Elementary | 55 | 99.46 |
| Alamo Elementary | 56 | 99.45 | Alamo Elementary | 56 | 99.45 |
| Alamo Elementary | 57 | 99.44 | Alamo Elementary | 57 | 99.44 |
| Alamo Elementary | 58 | 99.43 | Alamo Elementary | 58 | 99.43 |
| Alamo Elementary | 59 | 99.42 | Alamo Elementary | 59 | 99.42 |
| Alamo Elementary | 60 | 99.41 | Alamo Elementary | 60 | 99.41 |
| Alamo Elementary | 61 | 99.40 | Alamo Elementary | 61 | 99.40 |
| Alamo Elementary | 62 | 99.39 | Alamo Elementary | 62 | 99.39 |
| Alamo Elementary | 63 | 99.38 | Alamo Elementary | 63 | 99.38 |
| Alamo Elementary | 64 | 99.37 | Alamo Elementary | 64 | 99.37 |
| Alamo Elementary | 65 | 99.36 | Alamo Elementary | 65 | 99.36 |
| Alamo Elementary | 66 | 99.35 | Alamo Elementary | 66 | 99.35 |
| Alamo Elementary | 67 | 99.34 | Alamo Elementary | 67 | 99.34 |
| Alamo Elementary | 68 | 99.33 | Alamo Elementary | 68 | 99.33 |
| Alamo Elementary | 69 | 99.32 | Alamo Elementary | 69 | 99.32 |
| Alamo Elementary | 70 | 99.31 | Alamo Elementary | 70 | 99.31 |
| Alamo Elementary | 71 | 99.30 | Alamo Elementary | 71 | 99.30 |
| Alamo Elementary | 72 | 99.29 | Alamo Elementary | 72 | 99.29 |
| Alamo Elementary | 73 | 99.28 | Alamo Elementary | 73 | 99.28 |
| Alamo Elementary | 74 | 99.27 | Alamo Elementary | 74 | 99.27 |
| Alamo Elementary | 75 | 99.26 | Alamo Elementary | 75 | 99.26 |
| Alamo Elementary | 76 | 99.25 | Alamo Elementary | 76 | 99.25 |
| Alamo Elementary | 77 | 99.24 | Alamo Elementary | 77 | 99.24 |
| Alamo Elementary | 78 | 99.23 | Alamo Elementary | 78 | 99.23 |
| Alamo Elementary | 79 | 99.22 | Alamo Elementary | 79 | 99.22 |
| Alamo Elementary | 80 | 99.21 | Alamo Elementary | 80 | 99.21 |
| Alamo Elementary | 81 | 99.20 | Alamo Elementary | 81 | 99.20 |
| Alamo Elementary | 82 | 99.19 | Alamo Elementary | 82 | 99.19 |
| Alamo Elementary | 83 | 99.18 | Alamo Elementary | 83 | 99.18 |
| Alamo Elementary | 84 | 99.17 | Alamo Elementary | 84 | 99.17 |
| Alamo Elementary | 85 | 99.16 | Alamo Elementary | 85 | 99.16 |
| Alamo Elementary | 86 | 99.15 | Alamo Elementary | 86 | 99.15 |
| Alamo Elementary | 87 | 99.14 | Alamo Elementary | 87 | 99.14 |
| Alamo Elementary | 88 | 99.13 | Alamo Elementary | 88 | 99.13 |
| Alamo Elementary | 89 | 99.12 | Alamo Elementary | 89 | 99.12 |
| Alamo Elementary | 90 | 99.11 | Alamo Elementary | 90 | 99.11 |
| Alamo Elementary | 91 | 99.10 | Alamo Elementary | 91 | 99.10 |
| Alamo Elementary | 92 | 99.09 | Alamo Elementary | 92 | 99.09 |
| Alamo Elementary | 93 | 99.08 | Alamo Elementary | 93 | 99.08 |
| Alamo Elementary | 94 | 99.07 | Alamo Elementary | 94 | 99.07 |
| Alamo Elementary | 95 | 99.06 | Alamo Elementary | 95 | 99.06 |



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Source: Political Economy Research Institute | <https://peri.umass.edu>



December 27, 2021:
Investigative Piece by
ProPublica and Texas Tribune
of Midwest Sterilization Corp. in Laredo, TX

**A Plant That Sterilizes Medical Equipment Spews
Cancer-Causing Pollution on Tens of Thousands
of Schoolchildren**

*Nobody told Yaneli Ortiz's family that the factory they lived near
emitted ethylene oxide. Not when the EPA found it causes cancer.
Not when she was diagnosed with leukemia. And not when Texas
moved to allow polluters to emit more of the chemical.*

<https://www.propublica.org/article/a-plant-that-sterilizes-medical-equipment-spews-cancer-causing-pollution-on-tens-of-thousands-of-schoolchildren>